

COMMONWEALTH of VIRGINIA  
DEPARTMENT OF FORENSIC SCIENCE

CENTRAL LABORATORY  
A Nationally Accredited Laboratory

700 NORTH 5TH STREET  
RICHMOND, VIRGINIA 23219  
(804) 786-6971

CERTIFICATE OF INSTRUMENT ACCURACY

INSTRUMENT: Intox EC/IR II  
SERIAL NUMBER: 010658  
CERTIFICATION DATE: June 18, 2014  
DATE RECERTIFICATION DUE: December 15, 2014

The above listed instrument was found to meet all requirements for accuracy and performance established by the Department of Forensic Science as required by §9.1-1101 (B)(3). Measurement traceability is established through the use of reference materials supplied by an ISO/IEC 17025:2005 accredited calibration laboratory.

Estimation of Uncertainty of Measurement:

0.020 ± 0.004 g/210 L      0.150 ± 0.007 g/210 L  
0.080 ± 0.004 g/210 L      0.250 ± 0.007 g/210 L

The Uncertainty of Measurement is reported at the 99.73% level of confidence and a coverage factor of k=3. The estimation of the Uncertainty of Measurement is calculated for the Certification process only.

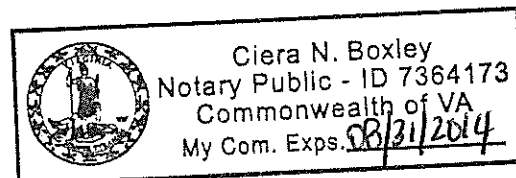
Sarah E. Dersch  
Forensic Scientist

CITY OF RICHMOND  
COMMONWEALTH OF VIRGINIA

The foregoing was acknowledged before me this 19<sup>th</sup> day of  
June, 2014 by Sarah E. Dersch

  
Ciera N. Boxley, Notary Public

My commission expires: August 31, 2014



Sed

**Department of Forensic Science  
Breath Alcohol Section  
Instrument Maintenance History  
1/1/1990 To 6/19/2014**

**Instrument Serial Number: 010658**

**As of 19-Jun-14**

<b>Maintenance</b>	<b>Certification</b>	<b>Technician</b>	
<b>Date</b>	<b>Date</b>	<b>Initials</b>	<b>Remarks</b>
18-Jun-14	18-Jun-14	SED (24178)	CERTIFIED.
08-Jan-14	08-Jan-14	HMS (18910)	CERTIFIED, REPLACED DRY GAS STANDARD.
18-Jul-13	18-Jul-13	HMS (18910)	FIRMWARE/SOFTWARE UPGRADE, CALIBRATED AND CERTIFIED.
28-Jan-13	28-Jan-13	HMS (18910)	CERTIFIED, REPLACED DRY GAS STANDARD.
10-Aug-12	10-Aug-12	HMS (18910)	CERTIFIED
18-May-12	23-Feb-12	HMS (18910)	REPLACED PRINTER RIBBON.
23-Feb-12	23-Feb-12	HMS (18910)	CERTIFIED, REPLACED DRY GAS STANDARD.
02-Sep-11	02-Sep-11	HMS (18910)	CERTIFIED
22-Mar-11	22-Mar-11	HMS (18910)	REPLACED DRY GAS STANDARD, CERTIFIED
26-Oct-10	26-Oct-10	HMS (18910)	CERTIFIED
08-Oct-10	08-Oct-10	HMS (18910)	CALIBRATED BAROMETRIC PRESSURE SENSOR, CALIBRATED AND CERTIFIED.
30-Apr-10	30-Apr-10	HMS (18910)	REPLACED DRY GAS STANDARD, CERTIFIED
03-Nov-09	03-Nov-09	HMS (18910)	CERTIFIED
02-Jun-09	02-Jun-09	HMS (18910)	CERTIFIED.
18-Mar-09	18-Mar-09	HMS (18910)	CERTIFIED.
13-Mar-09	13-Mar-09	NMJ (22392)	FIRMWARE/SOFTWARE UPGRADE, CERTIFIED.
12-Feb-09	12-Feb-09	HMS (18910)	CALIBRATED, CERTIFIED AND ACCEPTED.

5

# INTOX EC/IR II Quality Assurance Worksheet

Instrument Serial Number 010658 Worksheet Start Date 6/18/2014  
Location Norfolk Naval Base  
Address 1957 Taussig Blvd Norfolk VA 23511  
DFS Technician Sarah Dersch License No. 24178  
☐ Laboratory ☒ On-Site

Site Specification: No detrimental environmental conditions exist. ☒

Instrument Barometer (mm HG) 769 Reference Barometer (mm HG) 762  
Reference Barometer(RB)Serial # 009111 RB Calibration Due 5/19/2015

## Measurement Assurance Check

Standard (sea level)	PA Target	minimum	maximum	Sample 1	0.304
0.300	0.304	0.294	0.313	Sample 2	0.303
Precision		sample min	sample max	Sample 3	0.303
0.001		0.303	0.304		

Standard (sea level)	PA Target	minimum	maximum	Sample 1	0.100
0.100	0.101	0.097	0.104	Sample 2	0.100
Precision		sample min	sample max	Sample 3	0.100
0		0.100	0.100		

Dry gas standard Lot No. (with tank no.)

AG332301-04

☐ Replaced dry gas standard (+O-ring)

☐ Installed at Location

☐ Removed to DFS-Central

Supplies

Mouthpieces

Certificates of Analysis

Operator Worksheet

Other:

25

25

Notes:

Instrument Serial Number

010658

Certification Date

6/18/2014

☐ Calibrated☒ Certified☒ Measurement Assurance Check☒ Instrument Test☐ Troubleshooting/Maintenance Worksheet Completed

(Successful completion denotes satisfactory condition of the item.)

Standard (sea level)	PA Target	minimum	maximum	Sample 1	0.251
0.250	0.253	0.245	0.260	Sample 2	0.251
Precision		sample min	sample max	Sample 3	0.250
0.001		0.250	0.251		

Standard (sea level)	PA Target	minimum	maximum	Sample 1	0.151
0.150	0.152	0.147	0.156	Sample 2	0.151
Precision		sample min	sample max	Sample 3	0.151
0		0.151	0.151		

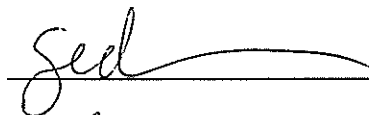
Standard (sea level)	PA Target	minimum	maximum	Sample 1	0.080
0.080	0.081	0.078	0.084	Sample 2	0.080
Precision		sample min	sample max	Sample 3	0.080
0		0.080	0.080		

Standard (sea level)	PA Target	minimum	maximum	Sample 1	0.019
0.020	0.020	0.017	0.023	Sample 2	0.019
Precision		sample min	sample max	Sample 3	0.019
0		0.019	0.019		

All measurements are in g/210L

Estimation of Uncertainty of Measurement and traceability records are located within the Breath Alcohol Section

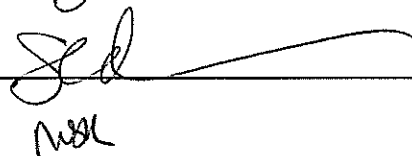
DFS Technician



Date

6/19/14

Issuing Analyst

  
MBL

Date

6/19/14

**Intox EC/IR-II: Certification**

*sed*

*Department of Forensic Science*

Serial Number: 010658      Test Number: 502

Test Date: 06/18/2014      Test Time: 14:17 EDT

Technician Initials: *SED*

Dry Gas Target: 0.253

Lot Number: 07713250I4-03      Exp Date: 05/01/2015

Tank Pressure: 531 psi      Barometric Pressure: 769 mmHg

System Check: *Passed*

Test	g/210L	Time
DIAG	Pass	14:17
BLK	0.000	14:18
CHK	0.251	14:19
BLK	0.000	14:20
CHK	0.251	14:21
BLK	0.000	14:22
CHK	0.250	14:23
BLK	0.000	14:25

**Success**

Standard Value (at sea level): 0.250 g/210L

Certification Status: Continued

**Intox EC/IR-II: Certification**

82

*Department of Forensic Science*

Serial Number: 010658      Test Number: 503  
Test Date: 06/18/2014      Test Time: 14:26 EDT

Technician Initials: SED

Dry Gas Target: 0.152

Lot Number: 0771315013-03      Exp Date: 05/01/2015

Tank Pressure: 933 psi      Barometric Pressure: 769 mmHg

System Check: Passed

Test	g/210L	Time
DIAG	Pass	14:27
BLK	0.000	14:28
CHK	0.151	14:29
BLK	0.000	14:30
CHK	0.151	14:31
BLK	0.000	14:32
CHK	0.151	14:33
BLK	0.000	14:34

**Success**

Standard Value (at sea level): 0.150 g/210L

Certification Status: Continued

**Intox EC/IR-II: Certification**

*SED*

*Department of Forensic Science*

Serial Number: 010658      Test Number: 504

Test Date: 06/18/2014      Test Time: 14:36 EDT

Technician Initials: *SED*

Dry Gas Target: 0.081

Lot Number: 0771308012-03      Exp Date: 05/01/2015

Tank Pressure: 928 psi      Barometric Pressure: 769 mmHg

System Check: *Passed*

Test	g/210L	Time
DIAG	Pass	14:36
BLK	0.000	14:37
CHK	0.080	14:38
BLK	0.000	14:39
CHK	0.080	14:40
BLK	0.000	14:41
CHK	0.080	14:42
BLK	0.000	14:43

**Success**

Standard Value (at sea level): 0.080 g/210L

Certification Status: Continued

**Intox EC/IR-II: Certification**

*SED*

*Department of Forensic Science*

Serial Number: 010658      Test Number: 505  
Test Date: 06/18/2014      Test Time: 14:45 EDT

Technician Initials: *SED*

Dry Gas Target: 0.020

Lot Number: 3441302011-01      Exp Date: 01/01/2016

Tank Pressure: 875 psi      Barometric Pressure: 769 mmHg

System Check: *Passed*

Test	g/210L	Time
DIAG	Pass	14:46
BLK	0.000	14:46
CHK	0.019	14:47
BLK	0.000	14:48
CHK	0.019	14:49
BLK	0.000	14:50
CHK	0.019	14:51
BLK	0.000	14:52

**Success**

Standard Value (at sea level): 0.020 g/210L

Certification Status: Success



**Intox EC/IR-II: Accuracy Check**

*SPD*

*Department of Forensic Science*

Serial Number: 010658      Test Number: 506

Test Date: 06/18/2014      Test Time: 14:55 EDT

Dry Gas Target: 0.304

Lot Number: AG334603-03      Exp Date: 12/12/2015

Tank Pressure: 281 psi      Barometric Pressure: 769 mmHg

System Check: Passed

Test	g/210L	Time
BLK	0.000	14:56
CHK	0.304	14:57
BLK	0.000	14:58
CHK	0.303	14:59
BLK	0.000	15:01
CHK	0.303	15:02

Test Status: Success

Calibration CRC: 624A3309

**Intox EC/IR-II: Accuracy Check**

507

*Department of Forensic Science*

Serial Number: 010658      Test Number: 507

Test Date: 06/18/2014      Test Time: 15:05 EDT

Dry Gas Target: 0.101

Lot Number: AG332301-04      Exp Date: 11/19/2015

Tank Pressure: 1085 psi      Barometric Pressure: 769 mmHg

System Check: Passed

Test	g/210L	Time
BLK	0.000	15:05
CHK	0.100	15:06
BLK	0.000	15:08
CHK	0.100	15:09
BLK	0.000	15:10
CHK	0.100	15:11

Test Status: Success

Calibration CRC: 624A3309



COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF FORENSIC SCIENCE

CERTIFICATE OF BLOOD ALCOHOL ANALYSIS  
AS DETERMINED BY A CHEMICAL TEST OF THE ACCUSED'S BREATH

NAME OF ACCUSED INSTRUMENT, TEST,	NAME OF COURT DFS
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BREATH ANALYSIS

SAMPLE EXAMINED AND TEST CONDUCTED BY DERSCH, SARAH, E		AGENCY DFS Central Lab
DFS LICENSE NUMBER 24178	LICENSE EXPIRES 10/01/2014	DATE TEST CONDUCTED 06/18/2014
TEST EQUIPMENT NUMBER 010658		

RESULTS: TIME SAMPLE TAKEN 15:19 EDT  
SAMPLE'S ALCOHOL CONTENT 0.00 GRAMS PER 210 LITERS OF BREATH

ATTEST:

I CERTIFY THAT THE ABOVE IS AN ACCURATE RECORD OF THE TEST CONDUCTED; THAT THE TEST WAS CONDUCTED WITH THE TYPE OF EQUIPMENT AND IN ACCORDANCE WITH THE METHODS APPROVED BY THE DEPARTMENT OF FORENSIC SCIENCE; THAT THE TEST WAS CONDUCTED IN ACCORDANCE WITH THE DEPARTMENT'S SPECIFICATIONS; THAT PRIOR TO ADMINISTRATION OF THE TEST THE ACCUSED WAS ADVISED OF HIS RIGHT TO OBSERVE THE PROCESS AND SEE THE BLOOD ALCOHOL READING ON THE EQUIPMENT USED TO PERFORM THE BREATH TEST, AND THAT I POSSESS A VALID LICENSE TO CONDUCT SUCH TEST, GIVEN UNDER MY HAND THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_\_.

BREATH TEST OPERATOR
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☐ I HAVE RECEIVED A COPY OF THIS CERTIFICATE OF ANALYSIS \_\_\_\_\_ SUBJECT'S SIGNATURE

☐ SUBJECT REFUSED TO SIGN FOR COPY OF CERTIFICATE OF ANALYSIS \_\_\_\_\_ OPERATOR'S SIGNATURE

FOR COURT